

### **ABSTRACT OF THE DISCLOSURE**

A method of calibrating a printing system is described herein. The method includes imaging a test pattern. The test pattern includes a set of densities. Each density is based on a plurality of exposures which have been  
5 randomized thereby forming an imaged test pattern. The method further includes scanning the densities of the imaged test pattern thereby forming a dataset. In one embodiment, the density of the test pattern is made from a thermal dye donor. In another embodiment, the density of the test pattern comprises multiple colors. Then, the method includes analyzing the dataset to identify outlier data. The  
10 method then includes calibrating an adjustable density printing system using the polynomial calibration curve.